

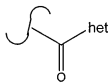
IN THE CLAIMS

Please amend the claims as follows:

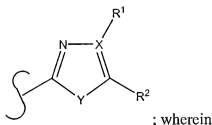
1. (Currently Amended) An inhibitor of fatty acid amide hydrolase represented by the following formula: A-B-C

wherein A is an inhibition subunit, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an α -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the α -keto heterocyclic pharmacophore being represented by the formula:



wherein "het" is represented by the following structure:



; wherein

X is selected from the group consisting of carbon and nitrogen;

Y is selected from the group consisting of oxygen and sulfur;

R^1 and R^2 are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

with the following proviso that provides: R^1 and R^2 cannot both be hydrogen; and if X is nitrogen, R^1 is absent;

the linkage subunit B is a chain for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase, the chain having a linear skeleton of between 3 and 9 3 to 9 carbon atoms selected from the group consisting of carbon, oxygen, sulfur, and nitrogen,

the linear skeleton having a first end and a second end, the first end being covalently bonded to the α -keto group of A,

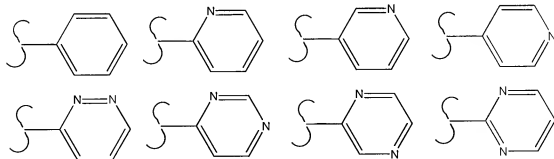
~~with the following proviso:~~

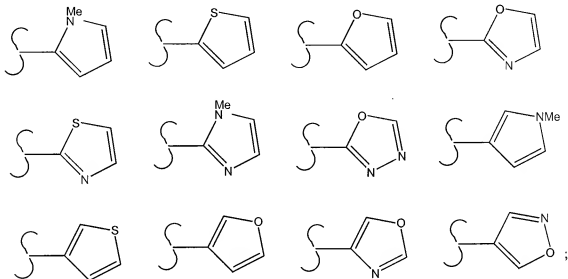
wherein if the first end of said chain is an α -carbon with respect to the α -keto group of the inhibition subunit A, then the α -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

the binding subunit C is a π -bond containing radical having a π -unsaturation and being selected from a group consisting of aryl, ~~alkenyl~~, alkynyl, and ring structures having at least one unsaturation, with or without one or more heteroatoms, the binding subunit C being covalently bonded to the second end of the linkage subunit B, the π -unsaturation within the π -bond containing radical being separated from the α -keto group of A by a sequence of no less than 3 and no more than 9 atoms bonded sequentially to one another, inclusive of the linear skeleton for enabling the π -unsaturation to bind to the binding region of the fatty acid amide hydrolase while the inhibition subunit A inhibits the fatty acid amide hydrolase [[:]]

~~with a proviso that C is optionally C1-C10 alkyl.~~

2. (Currently Amended) An inhibitor of fatty acid amide hydrolase according to claim 1 wherein R^1 and R^2 are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:





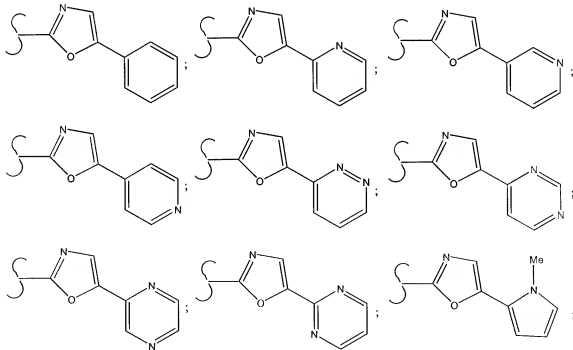
with the following provisos:

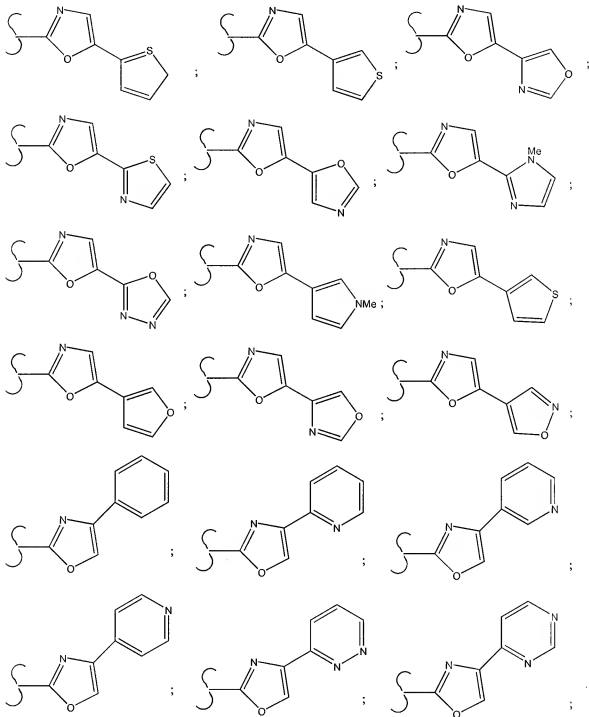
R¹ and R² cannot both be hydrogen; and

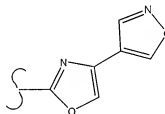
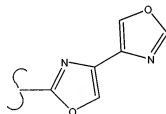
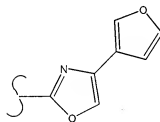
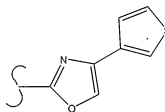
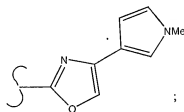
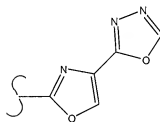
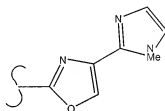
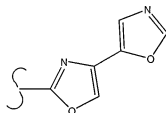
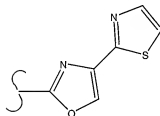
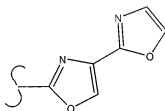
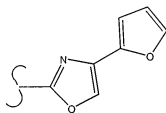
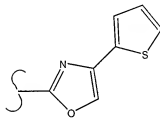
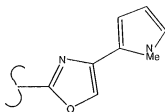
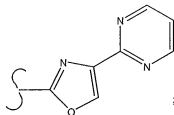
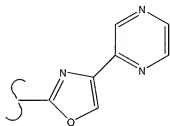
if X is nitrogen, R¹ is absent

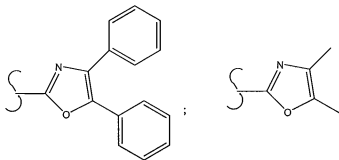
provided that R¹ and R² are not both hydrogen.

3. (Original) An inhibitor of fatty acid amide hydrolase according to claim 2 wherein:
"het" of the α -keto heterocyclic pharmacophore is selected from the following group:

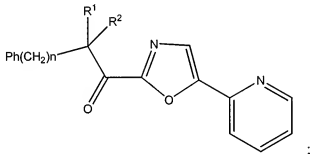








4. (Original) An inhibitor of fatty acid amide hydrolase according to claim 3 wherein the inhibitor is represented by the following structure:



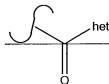
wherein R^1 and R^2 are independently selected from the group consisting of hydrogen, fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and
"n" is an integer between 2 and 8.

5. (Withdrawn; Currently Amended) A process for inhibiting a fatty acid amide hydrolase comprising the following step:
contacting the fatty acid amide hydrolase with an inhibiting concentration of an inhibitor of fatty acid amide hydrolase according to claim 1 represented by the following formula:

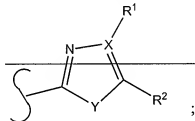


wherein A is an inhibition subunit, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an α -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the α -keto heterocyclic pharmacophore being represented by the formula:



wherein "het" is represented by the following structure:



wherein:

X is selected from the group consisting of carbon and nitrogen;

Y is selected from the group consisting of oxygen and sulfur;

wherein R¹ and R² are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

with the following provisos:

R¹ and R² cannot both be hydrogen; and

if X is nitrogen, R¹ is absent;

the linkage subunit B is a chain for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase which the inhibition subunit A simultaneously inhibits the fatty acid amide hydrolase, the chain having a linear skeleton of between 3 and 9 atoms selected from the group consisting of carbon, oxygen, sulfur, and nitrogen, the linear skeleton having a first end and a second end, the first end being covalently bonded to the α -keto group of A, with the following proviso:

if the first end of said chain is an α -carbon with respect to the α -keto group of the inhibition subunit A, then the α -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

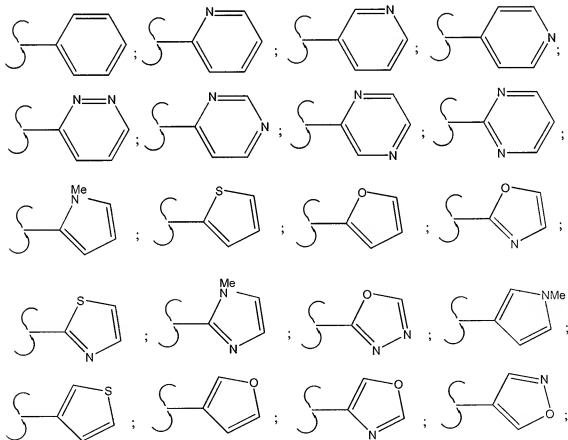
the binding subunit C is a π -bond-containing radical having a π -unsaturation and being selected from a group consisting of aryl, alkenyl, alkynyl, and ring structures having at

least one unsaturation, with or without one or more heteroatoms, the binding subunit C being covalently bonded to the second end of the linkage subunit B, the π unsaturation within the π -bond containing radical being separated from the α -keto group of A by a sequence of no less than 3 and no more than 9 atoms bonded sequentially to one another, inclusive of the linear skeleton for enabling the π unsaturation to bind to the binding region of the fatty acid amide hydrolase while the inhibition subunit A inhibits the fatty acid amide hydrolase;

with a proviso that C is optionally C1-C10 alkyl;

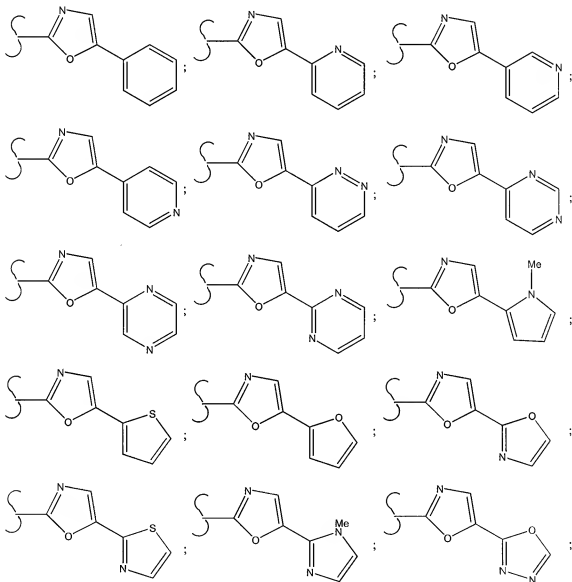
whereby, upon contacting the fatty acid amide hydrolase, the binding subunit C binds to the binding region of the fatty acid amide hydrolase for enhancing the inhibition of the fatty acid amide hydrolase.

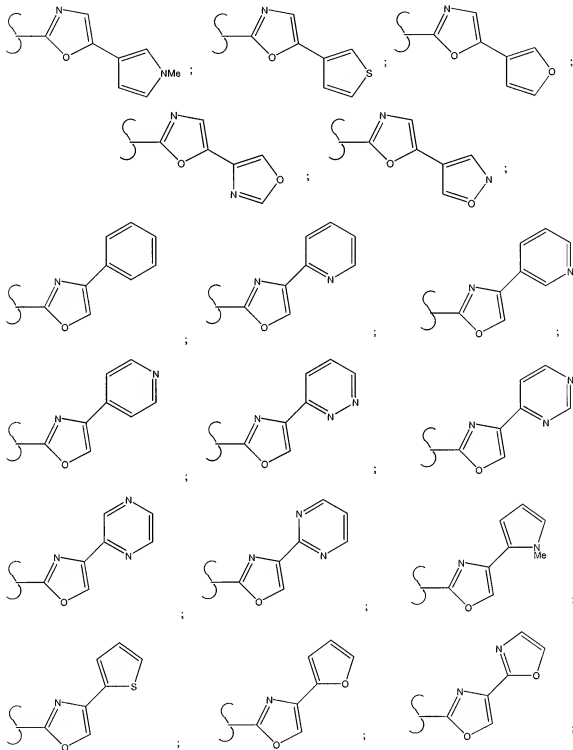
6. (Withdrawn; Currently Amended) A process according to claim 5 wherein R^1 and R^2 are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:

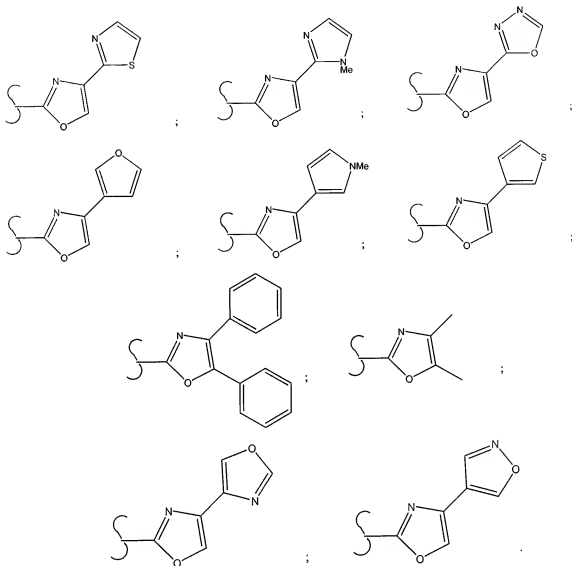


provided that R¹ and R² are not both hydrogen.

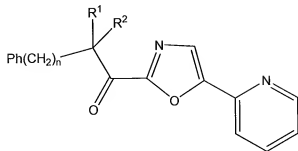
- "het" of the α -keto heterocyclic pharmacophore is selected from the following group:







8. (Withdrawn) A process according to claim 7 wherein the inhibitor is represented by the following structure:



wherein

R^1 and R^2 are independently selected from the group consisting of hydrogen, fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

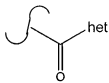
"n" is an integer between 2 and 8.

9. (New) An inhibitor of fatty acid amide hydrolase represented by the following formula:

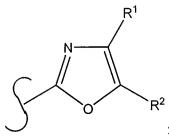
A-B-C

wherein A is an inhibition subunit, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an α -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the α -keto heterocyclic pharmacophore being represented by the formula:



wherein "het" is represented by the following structure:



wherein

R^1 is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

R^2 is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, and heteroaromatic ring;

provided that R^1 and R^2 are not both hydrogen;

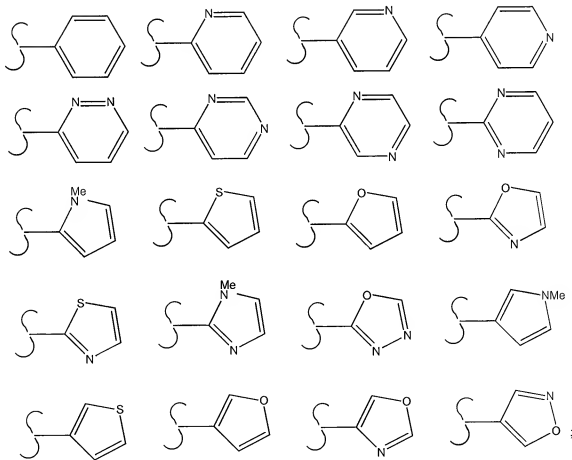
the linkage subunit B is a chain for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase, the chain having a linear skeleton of 3 to 9 carbon atoms, the

linear skeleton having a first end and a second end, the first end being covalently bonded to the α -keto group of A,

wherein if the first end of said chain is an α -carbon with respect to the α -keto group of the inhibition subunit A, then the α -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

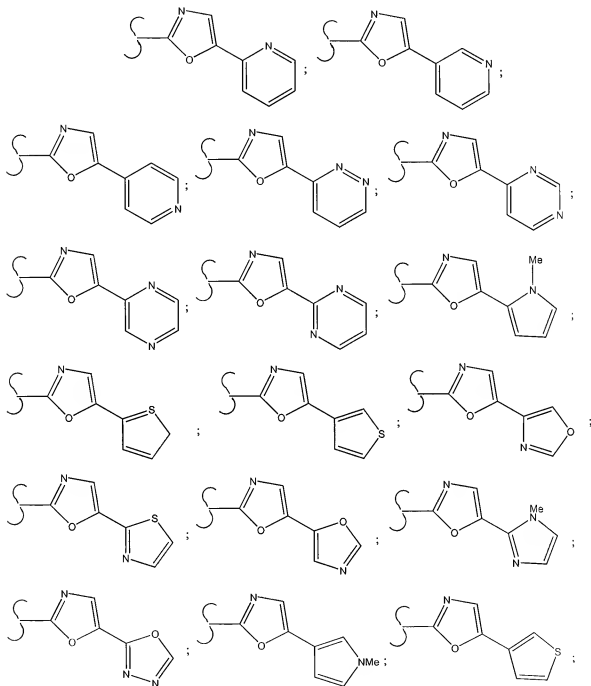
the binding subunit C is C1-C10 alkyl.

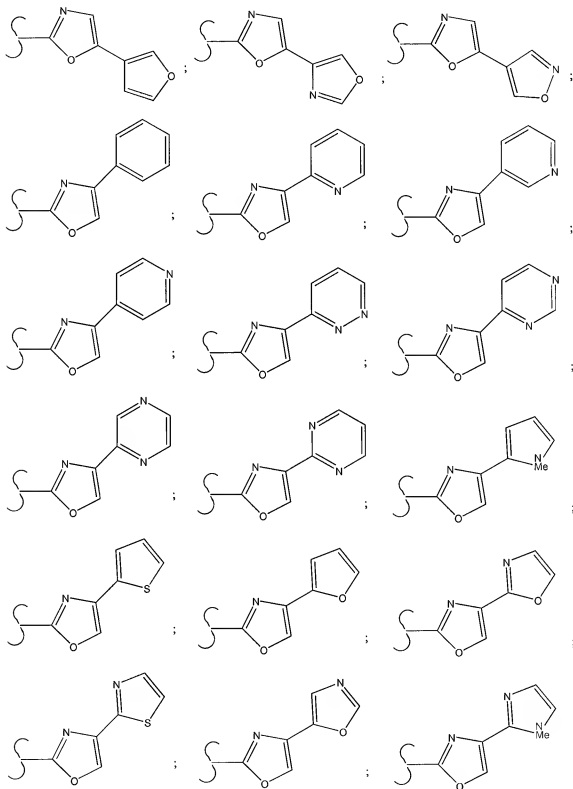
10. (New) The inhibitor of fatty acid amide hydrolase according to claim 9 wherein R^1 and R^2 are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:

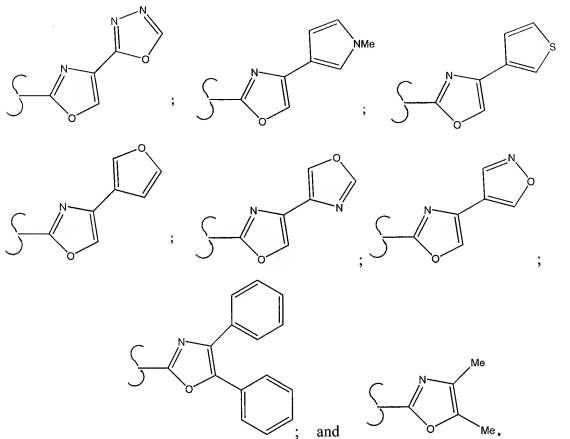


provided that R^2 is not phenyl.

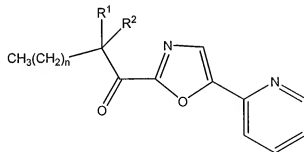
11. (New) The inhibitor of fatty acid amide hydrolase according to claim 10 wherein "het" of the α -keto heterocyclic pharmacophore is selected from:







12. (New) The inhibitor of fatty acid amide hydrolase according to claim 11 wherein the inhibitor is represented by the following structure:



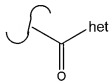
wherein R^1 and R^2 are independently hydrogen, fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, or alkyl; and "n" is 3, 4, 5, 6, 7, 8, or 9.

13. (New) An inhibitor of fatty acid amide hydrolase represented by the formula:

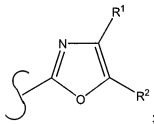
A-B-C

wherein A is an inhibition subunit, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an α -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the α -keto heterocyclic pharmacophore being represented by the formula:



wherein "het" is represented by the following structure:



wherein

R^1 is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

R^2 is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, and heteroaromatic ring;

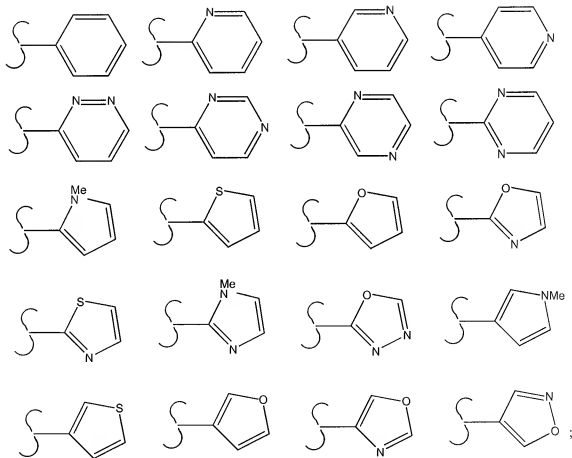
provided that R^1 and R^2 are not both hydrogen;

the linkage subunit B is a chain for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase, the chain having a linear skeleton of 3 to 9 carbon atoms, the linear skeleton having a first end and a second end, the first end being covalently bonded to the α -keto group of A,

wherein if the first end of said chain is an α -carbon with respect to the α -keto group of the inhibition subunit A, then the α -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

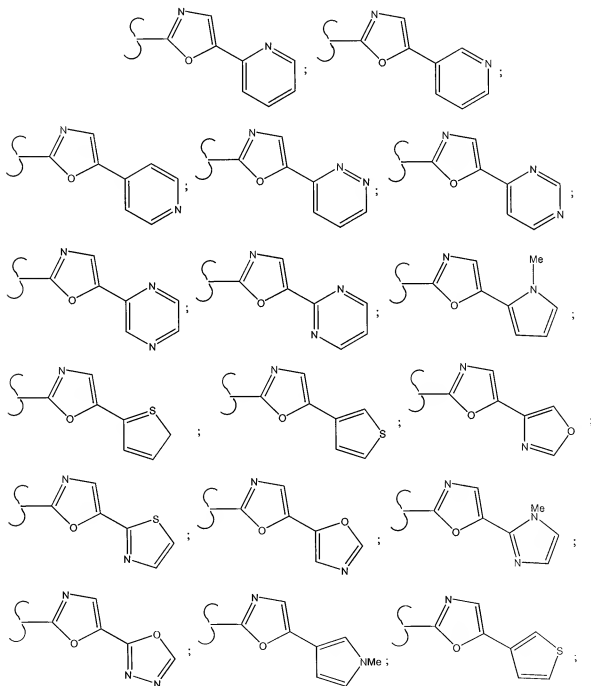
the binding subunit C is a π -bond containing radical having a π -unsaturation and being an alkenyl having at least one unsaturation, with or without one or more heteroatoms, the binding subunit C being covalently bonded to the second end of the linkage subunit B, the π -unsaturation within the π -bond containing radical being separated from the α -keto group of A by a sequence of no less than 3 and no more than 9 atoms bonded sequentially to one another, inclusive of the linear skeleton for enabling the π -unsaturation to bind to the binding region of the fatty acid amide hydrolase while the inhibition subunit A inhibits the fatty acid amide hydrolase.

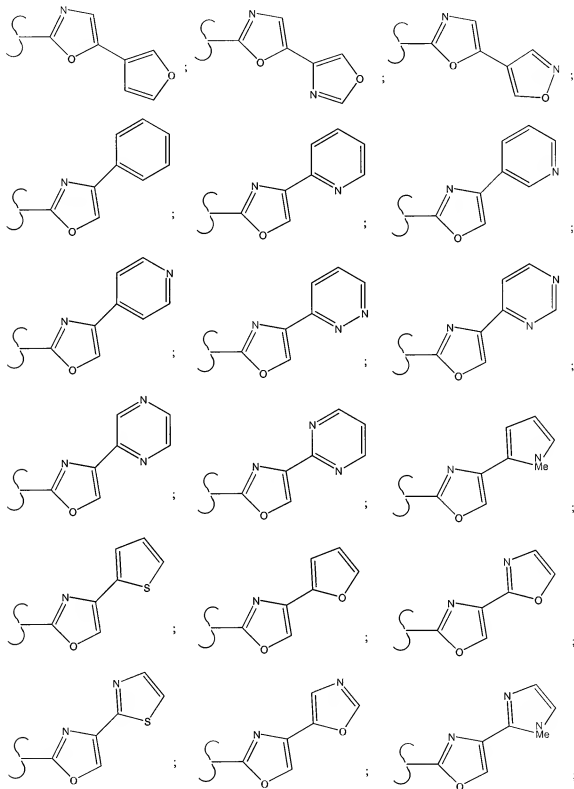
14. (New) An inhibitor of fatty acid amide hydrolase according to claim 13 wherein R^1 and R^2 are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:

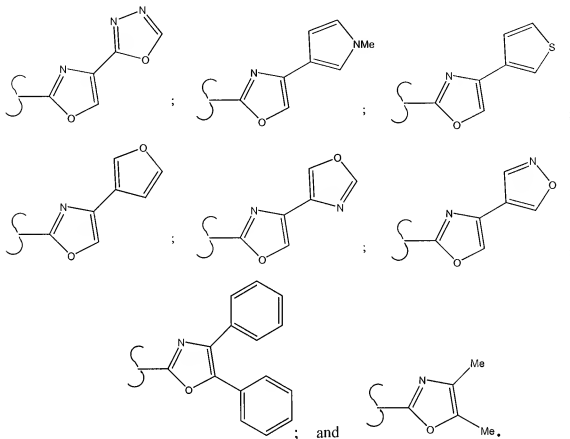


provided that R^2 is not phenyl.

15. (New) An inhibitor of fatty acid amide hydrolase according to claim 14 wherein:
"het" of the α -keto heterocyclic pharmacophore is selected from the following group:







16. (New) The inhibitor of fatty acid amide hydrolase according to claim 4 wherein R^1 and R^2 are both hydrogen.
17. (New) The inhibitor of fatty acid amide hydrolase according to claim 4 wherein "n" is 6, 7, or 8.
18. (New) The inhibitor of fatty acid amide hydrolase according to claim 4 wherein the inhibitor is represented by the following structure:

